

REMARKS

Applicant confirms the election to prosecute the invention covered by claims 1-10.

Claims 11-20 are hereby canceled.

Referencing the art rejection set forth in the Office Action, claims 1, 2, 4, and 6-9 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,112,587 to von Wedel et al (herein referred to as the '587 reference). Applicant has amended claim 1 to positively recite the step of "further oxidizing said nitric oxide to form nitrogen dioxide using said plurality of oxidative free radicals". The '587 reference does not disclose the formation of oxidative free radicals nor does it state that oxidative free radicals could be used to further oxidize nitric oxide into nitrogen dioxide. The Examiner has stated that the disclosure in the '587 reference mentions that hydrogen peroxide is not excessively decomposed and thereby implies that hydrogen peroxide is decomposed. However, even if this is arguably true, the reference does not disclose the nature of the decomposition products or their reactivity. Therefore, the '587 reference does not anticipate the claims of the present application. Additionally, Applicant's invention would not be obvious in view of the '587 reference for several reasons. First, the '587 reference teaches away from the decomposition of hydrogen peroxide and would likewise teach away from using any resulting decomposition products for further oxidation (see column 2, lines 64-66). In fact, the '587 reference tries to minimize, if not totally eliminate, any decomposition of the hydrogen peroxide (see column 3, lines 39-45). Second, the '587 reference uses undissociated hydrogen peroxide in their reaction (see column 2, line 51-55). This would lead one to conclude that the dissociation of hydrogen peroxide was undesirable. Therefore, one of ordinary skill in the art would not read the '587 reference and conclude that intentional decomposition of hydrogen peroxide would be advantageous to the oxidation of nitric oxide to nitrogen dioxide. Since the '587 reference does not anticipate nor make obvious Applicant's invention, Applicant asserts that the claims are allowable and requests favorable reconsideration.

Claims 5, 6 and 8 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. As recommended by the Examiner, Applicant has amended claims 5, 6 and 8 using proper Markush terminology. Therefore, these claims are now in proper format.

In view of the foregoing, Applicant respectfully submits that the art rejections are overcome by the amendment to claims 1, 5, 6 and 8 and that the application is now in condition for allowance. Accordingly, favorable reconsideration and allowance of the application is respectfully requested.

Respectfully submitted,

Dated: January 27, 2004

By: Randall M. Heald
Randall M. Heald
Attorney for Applicant
Registration No. 28, 561

Office of Chief Counsel
John F. Kennedy Space Center
National Aeronautics and Space Administration
Mail Code: CC-A
Kennedy Space Center, FL 32899
Phone: (321) 867-7214